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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,299

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EXAMINER

MALEKZADEH, SEYED MASOUD

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,299	Applicant(s) NOELLE, FREDERIC	
	Examiner SEYED M. MALEKZADEH	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 6-12 are pending.

In view of the amendment, filed on 02/28/2008, following rejections/objections are withdrawn from the previous office action, mailed on 11/28/2007, for the reason of record.

- Objection of drawings
- Rejection of claims 6-7, 9, and 11 under 35 U.S.C. 102(b) as being anticipated by Vuillaume et al. (US 2002/0157766)
- Rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over Vuillaume et al ('766) in view of Vuillaume et al (us 2002/0168910)
- Rejection of claim 10 under 35 U.S.C. 103(a) as being unpatentable over Vuillaume et al ('766) in view of Radwanski et al. (US 4,939,016)

New Grounds of Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-7 and 9-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Vuillaume et al (US 2002/0157766) in view of Boulanger et al (US 5,405,650)

Vuillaume et al ('766) disclose an assembly as an apparatus for producing non-woven webs of "spun-bond" type wherein the assembly comprises a spun-bond tower (1) to deposit filaments (3) as a web onto a conveyor belt (5) and also a device for consolidating the web by water jets (14, 15, and 16); further, the apparatus comprises a suction unit (25) as a moisture-expressing means to affect the web in the web moving direction, and an applicator unit (9) for applying a second sheet (V2) of discontinuous fibers product into the web. (See paragraphs [0049], [0051], [0054], [0062], [0065, and [0072], and figures 1-2)

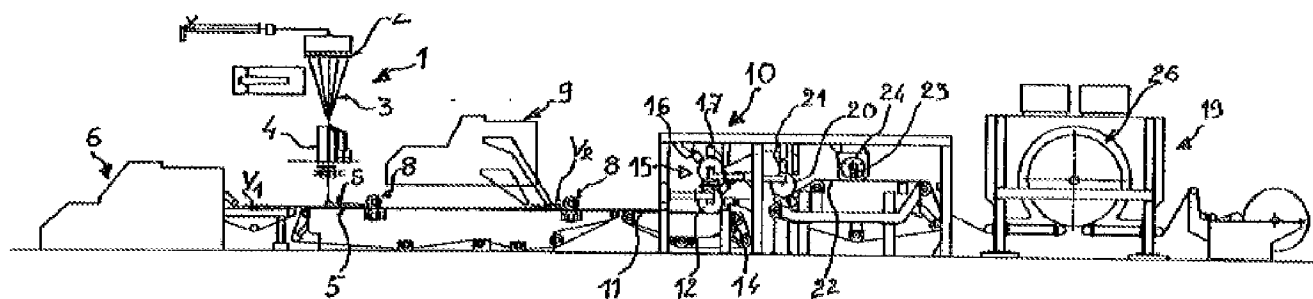
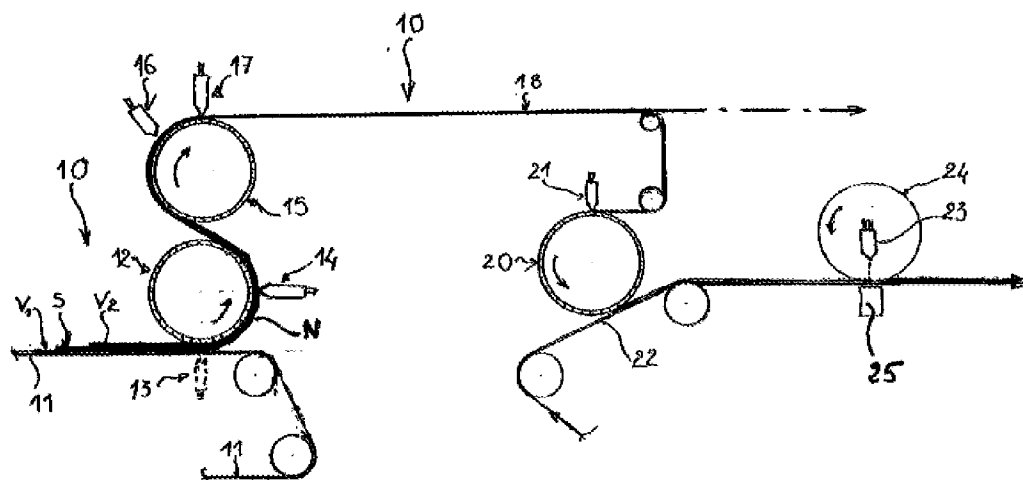


FIG. 1

FIG. 2



Moreover, as to claim 7, Vuillaume et al ('766) teach the expressing means include a vacuum device for subjecting the web to a suction effect. (See paragraph [0072]) Further, as to claim 9, the prior art discloses a device (19) for drying the web. (See paragraph [0026] and [0068])

As to claim 11, Vuillaume et al ('766) teach the applicator unit (9) is a device for applying discontinuous product fibers onto the surface of the "spunbond" wherein the discontinuous fibers are longitudinal bands. (See paragraph [0054])

However, Vuillaume et al ('766) fail to teach the applicator unit is selected from the group consisting of a Foam applicator, a lick-roll applicator and a spray applicator, as claimed in claim 1. Further, Vuillaume et al ('766) fail to teach the product applicator is selected from the group consisting of a surfactant, a binder, a lubricant, a swelling agent, a dye and a printed indicia, as claimed in claims 10 and 12.

In the analogous art, Boulanger et al. ('650) teach an apparatus for manufacturing a non-woven fabric by the application of fluid forces to a web of starting material in which the apparatus include a fiber entangling station (10) comprising a hollow metallic drum (12) mounted for its longitudinal axis into a suitable cradle. (See figures 3-4; lines 4-28, column 4)

Further, the prior art teaches the apparatus comprises a spray binder applicator station to spray a binder material directly onto the non-woven web by a nozzle (30) in which when the binder cures, it consolidates the non-woven web and increases the web resistance. Therefore, Boulanger et al. ('650) discloses the binder applicator unit is a spray applicator and the product applicator is a binder. (See figures 1-2; lines 17-25 and lines 37-44, column 5)

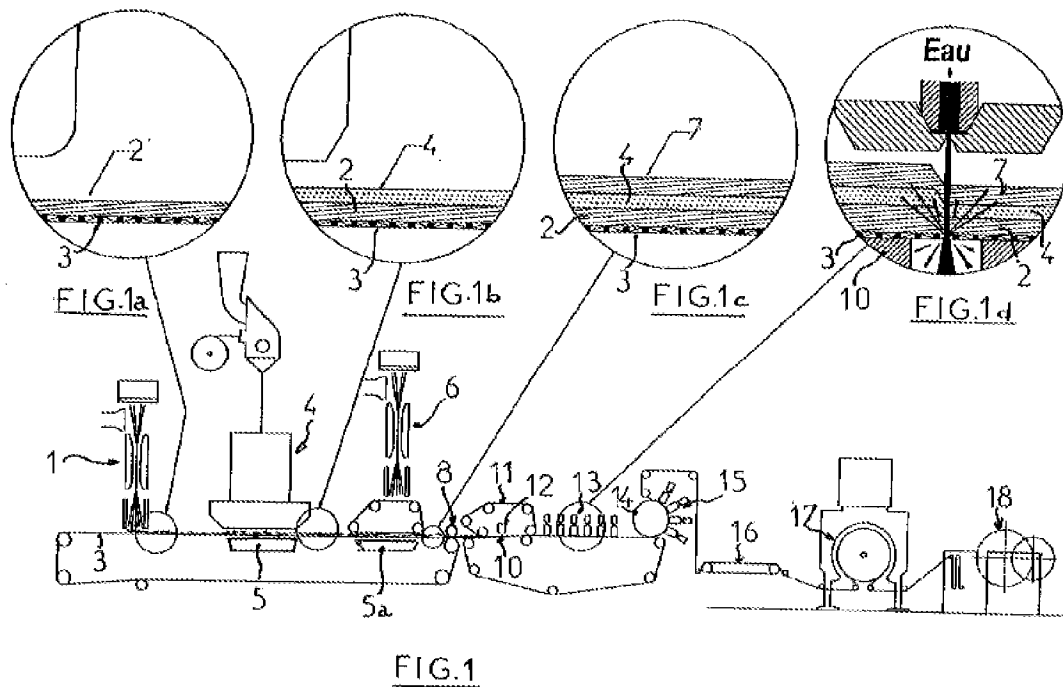
Therefore, it would have been obvious for one of ordinary skill in the art at the time of applicants' invention to modify the teachings of Vuillaume et al ('766) by providing a spray applicator unit for the apparatus in order to improve facilitation of the product applicator drying of the non-woven fabric and also to apply a binder product applicator to the non-woven web in order to

increase the resistance characteristics of non-woven fabrics as suggested by Boulanger et al. (US 5,405,650)

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vuillaume et al ('766) in view of Boulanger et al. (US 5,405,650) as applied to the claims 6-7 and 9-12, and further in view of Vuillaume et al. (US 2002/0168910)

Combined teachings of Vuillaume et al ('766) and Boulanger et al. ('650) disclose all the structural limitations of an apparatus for the continuous production of a non-woven product as discussed above in rejection of claims 6-7 and 9-12, however, fail to teach the vacuum device for expressing means provide a suction effect with a vacuum pressure of between 40 milli-bar to 700 milli-bar.

In the analogous art, Vuillaume et al ('910) teaches an apparatus for production of a non-woven web composite on a production line in which the apparatus include an expressing conveyor (16), on which it is expressed by a suction box in which there is a vacuum of 400 mili-bar. (See paragraph [0064] and figure 1)



Furthermore, Vuillaume et al ('910) disclose the advantages of providing an expressing conveyor in which apply vacuum to the non-woven web in order to improve mechanical properties and flexibility of the non-woven web product while retaining the appearance of the non-woven web. (See paragraph [0014])

Therefore, it would have been obvious for one of ordinary skill in the art at the time of applicants' invention to modify the combined teachings of Vuillaume et al ('766) and Boulanger et al ('650) through providing a vacuum with a pressure of 400 mili-bar for the expressing means of non-woven web in order to improve the mechanical properties and flexibility of the non-woven web products, as suggested by Vuillaume et al ('910)

Response to Arguments

Applicant's arguments with respect to claims 6-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Masoud Malekzadeh whose telephone number is 571-272-6215. The examiner can normally be reached on Monday – Friday at 8:30 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (571) 272-1189. The

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fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. M. M./

Examiner, Art Unit 1791

/Steven P. Griffin/

Supervisory Patent Examiner, Art Unit 1791